

U.S.S.N. 09/715,965
Filed: November 17, 2000
Amendment

APPENDIX: Clean Copy of Claims as Amended

a1
But B1
1. (amended) A method to decrease tumor growth comprising administering to tumors in an individual in need of treatment thereof an effective amount of a purified glycosaminoglycan degrading enzyme to decrease angiogenesis and thereby reduce tumor growth.

2. The method of claim 1 wherein the enzyme is selected from the group consisting of bacterial glycosaminoglycan degrading enzyme is selected from the group consisting of heparinase 1 from *Flavobacterium heparinum*, heparinase 2 from *Flavobacterium heparinum*, heparinase 3 from *Flavobacterium heparinum*, chondroitinase AC from *Flavobacterium heparinum*, and chondroitinase B from *Flavobacterium heparinum*, heparinase from *Bacteroides* strains, heparinase from *Flavobacterium* Hp206, heparinase from *Cytophagia* species, chondroitin sulfate degrading enzymes from *Bacteroides* species, chondroitin sulfate degrading enzymes from *Proteus vulgaris*, chondroitin sulfate degrading enzymes from *Micrococcus*, chondroitin sulfate degrading enzymes from *Vibrio* species, chondroitin sulfate degrading enzymes from *Arthrobacter aureus*, these enzymes expressed from recombinant nucleotide sequences in bacteria and combinations thereof.

3. The method of claim 1 wherein the enzyme is a mammalian enzyme.

4. The method of claim 1 wherein the enzyme is a chondroitinase.

5. The method of claim 4 wherein the chondroitinase is chondroitinase AC.

6. The method of claim 1 wherein the individual has cancer.

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7. The method of claim 6 wherein the cancer is a solid tumor and the enzyme is chondroitinase AC.

8. The method of claim 1 wherein the individual has a disorder in which angiogenesis is involved, the disorder being selected from the group consisting of rheumatoid arthritis; psoriasis; ocular angiogenic diseases, rubeosis; Osler-Webber Syndrome; myocardial angiogenesis; plaque neovascularization; telangiectasia; hemophiliac joints; angiofibroma; disease of excessive or abnormal stimulation of endothelial cells, Crohn's disease, atherosclerosis, scleroderma, and hypertrophic scars, diseases that have angiogenesis as a pathologic consequence, adhesions, scarring following transplantation, cirrhosis of the liver, pulmonary fibrosis following acute respiratory distress syndrome or other pulmonary fibrosis of the newborn, endometriosis, polyposis, obesity, uterine fibroids, prostatic hypertrophy, and amyloidosis.

9. The method of claim 1 wherein the enzyme is administered systemically.

10. The method of claim 1 wherein the enzyme is administered topically or locally at or adjacent a site in need of treatment.

11. The method of claim 1 wherein the enzyme is administered in a controlled and/or sustained release formulation.

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